Effect of *Macrolophus pygmaeus*' phytophagy behavior on prey consumption

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Abstract: Omnivorous insects in Heteroptera constitute an important component of predatory guilds with high potential for biological control. Understanding the relative effects of plant feeding on the suppression of prey on omnivores could be an important element in improving biological control strategies. In the current paper, the effect of different plant food sources on the predation rate of the omnivorous predator *Macrolophus pygmaeus* (Hemiptera: Miridae) were examined**.** In all the experiments, nymphs of the second instar of the aphid *Myzus persicae* (Homoptera: Aphididae) were used as prey at different densities. Firstly the consumption rate of the predator on *M. persicae* of various prey densities on leaf of pepper or eggplant was evaluated. Then using as additional food sources a flower or pollen of eggplant, predator's efficiency was estimated on three densities of prey. The predation rate was not affected by the plant leaf used. However, the results showed that the predation rate of *M. pygmaeus* was significantly decreased by the provision of flower or pollen at high prey densities. The importance of these results in understanding the role of phytophagy in the predation rates of omnivorous predators is discussed.

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